

CLAIMS:

1. An automated method of scheduling reinforcing bars for use in reinforced products, the method including the steps of:

storing default reinforced product parameters in a database;

5 in a database engine, automatically detecting one or more reinforced product properties from one or more reinforced product drawings; and

using the stored reinforced product parameters and detected reinforced product properties to generate reinforcing bar scheduling data.

10 2. A method according to claim 1, wherein the reinforced products include reinforced concrete products, including any one or more of a concrete slab, beam, column, wall, stair, tilt panel, coupler, top hat, bar chair and laser bar.

15 3. A method according to either one of claims 1 or 2, wherein the reinforced product properties include any one or more of the outline of the reinforced product, the extent of the reinforced product and any penetrations of the reinforced product.

20 4. A method according to any one of the preceding claims, wherein the reinforced product properties include steps in one or more surfaces of the reinforced product, including any visible and hidden steps in the reinforced product.

25 5. A method according to any one of the preceding claims, wherein the reinforced product properties include text characterising one or more of the reinforcing bars.

6. A method according to claim 5, wherein the text characterises the dimensions of reinforcing bars or the spacing between reinforcing bars.

7. A method according to claim 6, wherein the reinforcing bar dimensions include any one or more of shape, length and position within a layer of the reinforced product.

5 8. A method according to any one of the preceding claims, wherein the reinforced product properties include the shape of one or more of the reinforcing bars.

10 9. A method according to any one of the preceding claims, wherein the reinforced product properties include the extent of one or more ranges of the reinforcing bars.

15 10. A method according to any one of the preceding claims, wherein the reinforcing bars include primary reinforcing bars or secondary reinforcing bars, such as distribution steel.

11. A method according to any one of the preceding claims, wherein the reinforced product properties include data characterising the secondary reinforcing bars.

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12. A method according to any one of the preceding claims, wherein the reinforced product properties include positions where one or more reinforcing bars overlap.

25 13. A method according to any one of the preceding claims, wherein the reinforced product properties include the gradient of one or more portions of the reinforced product.

14. A method according to any one of the preceding claims, wherein the default

reinforced product parameters include the bottom or top cover of the reinforced product.

15. A method according to any one of the preceding claims, wherein the default  
5 reinforced product parameters may include bar overlap lengths.

16. A method according to any one of the preceding claims, wherein the default reinforced product parameters include default bar shapes or dimensions.

10 17. A method according to any one of the preceding claims, the method further including the step of:

selecting one or more zones within the one or more reinforced product drawings to carry out reinforcing bar scheduling.

15 18. A method according to claim 17, wherein each zone corresponds to separately constructed portion of the reinforced product.

19. A method according to claim 18, wherein at least one separately constructed portion is a separately poured section of a reinforced concrete  
20 product.

20. A method according to any one of the preceding claims, the method further including the step of:

at a display terminal, displaying the reinforcing bar scheduling data.

21. A method according to any one of the preceding claims, the method further including the step of:

rationalising the reinforcing bars for use in the reinforced products.

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22. A method according to claim 21, wherein the step of rationalising the reinforcing bars includes:

selecting reinforcing bars having dimensions within a predefined tolerance;  
and

10        re-labelling the selected reinforcing bars within the same dimensions on the reinforced product drawings.

23. An automated system for scheduling reinforcing bars for use in reinforced products, the system including:

15        a database for storing default reinforced product parameters; and

a database engine for automatically detecting one or more reinforced product properties from one or more reinforced product drawings, wherein database engine uses the stored reinforced product parameters and detected reinforced product properties to schedule reinforcing bars for use in reinforced

20        products in accordance with any one of the preceding claims.

24. A computer program element for use in a computerised system for scheduling reinforcing bars for use in reinforced products, the computer program element including a series of instructions for causing a database engine to:

25        automatically detect one or more reinforced product characteristics from one or more reinforced product drawings; and

use the reinforced product parameters stored in a database, and detected reinforced product properties, to schedule reinforcing bars for use in reinforced products in accordance with any one of claims 1 to 22.